

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the Patent Application of:

CLEMENS JUNG ET AL.

Serial No.: 10/714,110

Filed: November 14, 2003

For: METHOD OF OPERATING
A DISHWASHER WITH A
CENTRAL CONTROL UNIT

Group Art Unit: 1746

Examiner: EL-Arini, Zeinab E.

APPELLANTS' REPLY TO EXAMINER'S ANSWER

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Sir:

This is Appellants' Reply to Examiner's Answer to Appellants' Appeal Brief pursuant to 37 C.F.R. §41.41 in support of Appellants' appeal of the Third Rejection of the Examiner, mailed July 16, 2007, of claims 2, 8-10, and 12-20.

ARGUMENT

In answer to the points made in Appellants' Appeal Brief, the Examiner has again fallen back on the same arguments repeatedly advanced during examination, and ultimately rejected by the Board of Patent Appeals and Interferences. This Reply will address several assertions made by the Examiner in the Answer, and supplements the arguments made by Appellants in their Appeal Brief.

In its Opinion dated March 29, 2007, the Board of Patent Appeals and Interferences (Board) rejected the Examiner's argument that determining the solubility of soil as claimed is inherent in the process disclosed in U.S. Patent No. 3,888,269 to Bashark, based on the disclosure in U.S. Patent No. 5,586,567 to Smith that turbidity is a measure of the suspended and/or soluble soils in a wash liquid. The Board concluded:

"In our view, Appellants have persuasively argued that one of ordinary skill in the art at the time of the invention would not have viewed the applied prior art as disclosing, either explicitly or inherently, a method in which 'solubility of soil on the dishes to be cleaned' is measured. Appellants' arguments, though clearly pointing out the differences between turbidity and solubility, have not been addressed by the Examiner.... Accordingly, the Examiner's rejection cannot be sustained." *Opinion, p. 5.*

Notwithstanding the Board's earlier Opinion and express rejection of the Examiner's arguments, the Examiner persists in arguing that turbidity is equivalent to solubility, and determining turbidity inherently involves measuring solubility. The Examiner's rejection should again be reversed. Furthermore, the rejection of claims 2, 8-10, and 12-20 in the prior Office actions has been reversed by the Board. Therefore, this issue has been resolved in Appellants' favor and these claims are thus allowable over the cited prior art. The Board should expressly direct the Examiner to allow claims 2, 8-10, and 12-20. It is manifestly unfair to continue to subject Appellants to the costs and delays attending appeals to the Board when the Examiner overtly ignores the Board's earlier Opinion and directive, and continues to reject the claims based upon discredited arguments.

The Examiner again concedes that Bashark '269 does not teach determining the solubility of the soil on the dishes as claimed by Appellants. The Examiner also asserts that Smith '567 discloses that turbidity is a measure of the suspended and/or soluble soils in the fluid. However, the Examiner again engages in an extrapolation that is neither supported in law nor science, i.e. turbidity is a measure of the solubility of the soils. This extrapolation has already been rejected

by the Board.

The Examiner relies on U.S. Patent No. 3,114,253 to Morey et al. for the proposition that the rate of removal of soil from fabrics in a washing machine has a direct relationship to the rate of change of turbidity of the washing solution, and that this relationship can be utilized to terminate the washing operation when the rate of change of turbidity approaches zero. Be that as it may, Morey '253 teaches no more than is taught in Bashark '269. Both references rely upon the rate of change of turbidity to control a washing operation. In neither reference is there any mention of measuring solubility, nor that solubility is inherently measured by determining turbidity.

The Examiner again asserts:

"It would have been obvious for one skilled in the art to use the process taught by Bashark to obtain the claimed process, because the steps of measuring the turbidity as taught by Bashark will include determining the solubility of the soil as claimed.... This is also because the degree of turbidity depends on the amount of soil been found on the dishes.... The turbidity which is a measure of the soluble soil in the liquid depend on the temperature, the time or the duration of the cleaning step, the volume of water, and the quantity of cleaning agent as claimed." *Examiner's Answer, pp. 4-5.*

As persuasively argued by Appellants, and adopted by the Board, the cited references do not support this assertion. This is nothing more than the same argument that has already been rejected. Furthermore, that the degree of turbidity depends on the amount of soil on the dishes, and that turbidity depends on temperature, duration of the cleaning step, water volume, and cleaning agent concentration, is irrelevant to the issues of whether measuring turbidity is equivalent to measuring solubility, or whether solubility is inherently measured by determining turbidity.

The Examiner further asserts:

"Appellants' argument with respect to measuring turbidity will not include determining the solubility of the soil, and there is no correlation between turbidity and solubility that can provide a definitive quantification of solubility strictly on the basis of turbidity, is unpersuasive, because Morey et al. disclose that the rate of removal of soil from fabrics in a washing machine has a direct relationship to the rate of change of turbidity of the washing solution, and to utilize this knowledge to cause the washing operation to be terminated when the rate of change of turbidity approaches zero." *Examiner's Answer, p. 5.*

Again, this is nothing more than an assertion that the rate of change of turbidity is related to the rate of removal of soil, which can be utilized to terminate a washing operation when the rate of change of turbidity approaches zero. While this assertion may be true, it is totally irrelevant to the issues of whether measuring turbidity is equivalent to measuring solubility, or whether solubility is inherently measured by determining turbidity.

The Examiner continues:

One skilled in the art would measure the solubility of the soil by calculating the amount of soil and the turbidity of the liquid. *Examiner's Answer, p. 5.*

This assertion is wholly unsupported. It is certainly not supported by any of the prior art references cited by the Examiner. The Examiner fails to explain in any way how solubility could be determined by "calculating the amount of soil and the turbidity of the liquid." Significantly, what is involved in "calculating the amount of soil" is not defined. Is this the amount of soil on the dishes, or the amount of soil in the wash liquid? If it is the amount of soil in the wash liquid, measuring turbidity provides an indication of the amount of soil in the wash liquid. However, as discussed above, measured turbidity is not a measurement of the solubility of the soil. Furthermore, measuring the turbidity of a wash liquid and determining a soil content of the wash liquid would involve nothing more than what has been disclosed in Bashark '269, Smith '567,

and Morey '253.

If "calculating the amount of soil" involves determining the amount of soil on the dishes, the Examiner has not identified how this could be accomplished. Solely for the sake of argument and without conceding that any of the following examples is practicable, one method might involve weighing each dish with and without soil. Another method might utilize one or more scanning devices which would scan each dish and convert information from the scans to a soil quantity. However, none of the references even hint at these methods, there has been no showing that one skilled in the art would even consider such methods, or that such methods would be practicable and preferable over Applicants' claimed method. The essence of Applicants' claimed invention is the measurement of solubility utilizing known dishwasher components, and manipulating the operation of the dishwasher in a preselected manner during a preliminary step. The above examples would involve entirely new methods and components, adding to the complexity and cost of dishwashing appliances. "Calculating the amount of soil" with or without a measurement of turbidity, is not a determination of solubility and does not form a part of Applicants' claimed invention.

For these reasons, and for the reasons set forth in Applicants' Appeal Briefs and the Board's March 29, 2007, Opinion, claims 2, 8-10, and 12-20 are patentable over the prior art of record. Appellants request the reversal of the rejection of claims 2, 8-10, and 12-20, and an express directive allowing claims 2, 8-10, and 12-20.

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CONCLUSION

In view of the foregoing, it is submitted that the continuing rejection of claims 2, 8-10, and 12-20 is improper and should be reversed. Therefore, a reversal of the rejection, and the express allowance, of claims 2, 8-10, and 12-20 is respectfully requested.

Respectfully submitted,
CLEMENS JUNG ET AL.

Dated: May 14, 2008

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